

STATE OF SOUTH CAROLINA  
COUNTY OF RICHLAND

BEFORE THE CHIEF PROCUREMENT  
OFFICER FOR CONSTRUCTION

IN THE MATTER OF: BID PROTEST

DECISION

REA CONTRACTING, LLC.  
CO., INC.

CASE NO. 2010-001

v.

SOUTH CAROLINA VOCATIONAL  
REHABILITATION DEPARTMENT

POSTING DATE:  
OCTOBER 9, 2009

ORANGEBURG VOCATIONAL  
REHABILITATION CENTER  
TRUCK ENTRANCE  
PROJECT H73-9587-PG

This matter is before the Chief Procurement Officer for Construction (CPOC) pursuant to a request by Rea Contracting, LLC. (Rea), under the provisions of section 11-35-4210 of the South Carolina Consolidated Procurement Code, for an administrative review of the Orangeburg Vocational Rehabilitation Center Truck Entrance Re-Bid ("the Project"), for the South Carolina Vocational Rehabilitation Department (SCVRD). Rea protests SCVRD's posting of a Notice of Intent to Award a contract for the project to Palmetto Site Prep., LLC (Palmetto).

The CPOC conducted an administrative review without hearing pursuant to S.C. Code Ann. §11-35-4210(4). This decision is based on Rea's statement of protest, the bid documents and applicable law.

#### **NATURE OF THE PROTEST**

Rea's statement of protest is attached and incorporated herein by reference. [Ex. A]

## FINDINGS OF FACT

The following dates and facts are relevant to the protest:

1. On August 24, 2009, SCVRD advertised for bids. [Ex. B]
2. On September 17, 2009, SCVRD issued Addendum No. 1. [Ex. C]
3. At 2 PM on September 22, 2009, SCVRD opened 13 bids. [Bid Tabulation Ex. D]
4. Palmetto submitted a low bid of \$182,450 but failed to acknowledge on the bid form the receipt of Addendum No. 1. [Palmetto Bid Ex. E]
5. On September 23, 2009, SCVRD posted of Notice of Intent to Award a contract to Palmetto. [Ex. F]
10. On September 29, 2009, the CPOC received Rea's protest.

## APPLICABLE LAW

The applicable code provision is unambiguous and states (in part) as follows:

(13) Minor Informalities and Irregularities in Bids. A minor informality or irregularity is one which is merely a matter of form or is some immaterial variation from the exact requirements of the invitation for bids having no effect or merely a trivial or negligible effect on total bid price, quality, quantity, or delivery of the supplies or performance of the contract, and the correction or waiver of which would not be prejudicial to bidders. The procurement officer shall either give the bidder an opportunity to cure any deficiency resulting from a minor informality or irregularity in a bid or waive any such deficiency when it is to the advantage of the State. Such communication or determination shall be in writing. Examples of minor informalities or irregularities include, but are not limited to:

\*\*\*

(d) failure of a bidder to acknowledge receipt of an amendment to a solicitation, **but only if:**

(i) the bid received indicates in some way that the bidder received the amendment, such as where the amendment added another item to the solicitation and the bidder submitted a bid, on it, if the bidder states under oath that it received the amendment before bidding and that the bidder will stand by its bid price; or

(ii) the amendment has **no effect on price** or quantity or merely a **trivial** or negligible **effect on quality** or delivery, and is not prejudicial to bidders, such as an amendment correcting a typographical mistake in the name of the governmental body..." [emphasis added] *SC Code Ann § 11-35-1520(13)*

## CONCLUSION OF LAW

Rea argues that Palmetto's bid was non-responsive due to Palmetto's failure to acknowledge Addendum No. 1 on its bid. Rea also argues that Addendum No. 1 had some effect on price without stating the magnitude of that effect. While, Rea does not raise the issue of quality, in this case price and quality are so closely related, the CPOC addresses both.

The Instructions to Bidders provide:

3.4.6 Bid Forms wherein the Bidder fails to acknowledge all issued Addenda by number shall be rejected as non-responsive, except for the following:

\*\*\*

3.4.6.3 The Addendum clearly would have had no effect or merely a trivial or negligible effect on price, quality...

(1) Trivial Or Negligible Effect shall be defined as an increase in the Base Bid amount of the apparent low bidder, not to exceed one percent (1%) of the Base Bid amount."

This section of the Instructions to Bidder's conflicts with SC Code Ann § 11-35-1520(13)(d) cited above.

In 1993, Section 11-35-1520 was amended by 1993 Act 178 to, among other things, add subsection (13) pertaining to minor informalities and irregularities in bids. Under that amendment, Section 11-35-1520(13)(d)(ii) provided that failure to acknowledge an addendum is a minor informality if the "amendment has no effect or merely a trivial or negligible effect on price, quality ..." The language in the Instructions to Bidders regarding failure to acknowledge addenda reflects the language in the 1993 amendment. In 1998, Section 11-35-1520(13)(d) was amended by 1997 Act 153. Under the 1998 amendment, Section 11-35-1520(13)(d)(ii) provided that failure to acknowledge an addendum is a minor informality if the "amendment has no effect on price ... or merely a trivial or negligible effect on quality." Therefore, if Addendum No. 1 has any effect on price or more than a trivial or negligible effect on quality, the failure to acknowledge the Addendum in the bid is not an excusable minor informality under Section 11-35-1520(13)(d)(ii) and the bid must be rejected. On the other hand, if the Addendum had no effect on price or quality then failure to acknowledge the Addendum was an excusable minor informality.

Addendum No. 1 only modified the 6" concrete pavement/parking lot detail on sheet C4 of the drawings. In its original form, this detail included a note that required the pavement to be constructed of "class B" concrete. Addendum No. 1 instructed bidders to delete the reference to "class B" concrete noting that the concrete "should be 3,000 psi" concrete.

Rea asserts that “class B” concrete is defined in the South Carolina Department of Transportation’s (SCDOT) Standard Specifications for Highway Construction, 2000 edition, as 2,500-psi concrete. Therefore, Rea concludes that Addendum No. 1 increased the required 28-day strength of the concrete from 2,500 psi to 3,000 psi, which also increased the price of the concrete.

Rea’s reliance on the 2000 edition of the SCDOT Standard Specifications for determining the requirements for the concrete is misplaced. The concrete pavement detail does not reference SCDOT Standard Specifications. Moreover, the bid documents include specifications for cast-in-place concrete in Section 033000 of the Project Manual. [This Section of Specifications is attached as Ex. G] These concrete specifications do not reference any edition of the SCDOT Standard Specifications.<sup>1</sup> Instead, Part 2.5B of the specifications in the bid documents provides that the 28-day strength of the concrete used on the project is to be that specified on the drawings. Prior to the issuance of the Addendum, the drawings specified “class B” concrete. Part 3.10B of the specifications in the bid documents states that “Class B” concrete is 3,000 psi concrete. Therefore, the only reasonable interpretation of the pre-addendum language on the detail for the concrete pavement is that “class B” concrete is 3000 psi concrete. Addendum No. 1 simply deleted the term “class B” and replaced it with “3,000 psi.” In other words, the change made by Addendum No. 1 was merely a change in form not substance. The concrete was required to be 3,000 psi concrete before the change and was still required to be 3,000 psi concrete after the change. Addendum No. 1 did not in any way change the required minimum 28 day strength of the concrete nor did it any way effect price or quality.

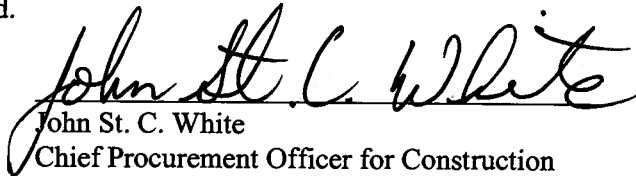
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<sup>1</sup> This is in contrast to the specifications in the bid documents for asphalt pavement as well as the detail in the drawings for this pavement, which reference SCDOT Standard Specifications. While the references do not identify the edition, the terms used and section numbers cited make it clear that all the citations but one are to the 2000 edition rather than the 2007 edition. The bid documents make it clear that SCVRD and its designers knew how to cite SCDOT Standard Specifications when they wanted them to apply. By not referencing the SCDOT Standard Specifications with respect to the concrete, they made it clear that they did not intend the SCDOT Standard Specification to apply to the concrete pavement.

**DECISION**

It is the decision of the Chief Procurement Officer for Construction that Addendum No. 1 had no effect on price or quality and Palmetto's failure to acknowledge receipt of the addendum was an excusable minor informality under S.C. Code Ann. § 11-35-1520(13)(d).

For the foregoing reasons the Protest is denied.

  
John St. C. White  
Chief Procurement Officer for Construction

9 Oct 2009  
Date

Columbia, South Carolina

## STATEMENT OF RIGHT TO FURTHER ADMINISTRATIVE REVIEW

The South Carolina Procurement Code, in Section 11-35-4210, subsection 6, states:

(6) Finality of Decision. A decision pursuant to subsection (4) is final and conclusive, unless fraudulent or unless a person adversely affected by the decision requests a further administrative review by the Procurement Review Panel pursuant to Section 11-35-4410(1) within ten days of posting of the decision in accordance with subsection (5). The request for review must be directed to the appropriate chief procurement officer, who shall forward the request to the panel or to the Procurement Review Panel, and must be in writing, setting forth the reasons for disagreement with the decision of the appropriate chief procurement officer. The person also may request a hearing before the Procurement Review Panel. The appropriate chief procurement officer and an affected governmental body shall have the opportunity to participate fully in a later review or appeal, administrative or judicial.

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Copies of the Panel's decisions and other additional information regarding the protest process is available on the internet at the following web site: [www.procurementlaw.sc.gov](http://www.procurementlaw.sc.gov)

FILE BY CLOSE OF BUSINESS: Appeals must be filed by 5:00 PM, the close of business. *Protest of Palmetto Unilect, LLC*, Case No. 2004-6 (dismissing as untimely an appeal emailed prior to 5:00 PM but not received until after 5:00 PM); *Appeal of Pee Dee Regional Transportation Services, et al.*, Case No. 2007-1 (dismissing as untimely an appeal faxed to the CPO at 6:59 PM).

FILING FEE: Pursuant to Proviso 83.1 of the 2008 General Appropriations Act, "[r]equests for administrative review before the South Carolina Procurement Review Panel shall be accompanied by a filing fee of two hundred and fifty dollars (\$250.00), payable to the SC Procurement Review Panel. The panel is authorized to charge the party requesting an administrative review under the South Carolina Code Sections 11-35-4210(6), 11-35-4220(5), 11-35-4230(6) and/or 11-35-4410(4). . . . Withdrawal of an appeal will result in the filing fee being forfeited to the panel. If a party desiring to file an appeal is unable to pay the filing fee because of hardship, the party shall submit a notarized affidavit to such effect. If after reviewing the affidavit the panel determines that such hardship exists, the filing fee shall be waived." 2008 S.C. Act No. 310, Part IB, § 83.1. PLEASE MAKE YOUR CHECK PAYABLE TO THE "SC PROCUREMENT REVIEW PANEL."

LEGAL REPRESENTATION: In order to prosecute an appeal before the Panel, a business must retain a lawyer. Failure to obtain counsel will result in dismissal of your appeal. *Protest of Lighting Services*, Case No. 2002-10 (Proc. Rev. Panel Nov. 6, 2002) and *Protest of The Kardon Corporation*, Case No. 2002-13 (Proc. Rev. Panel Jan. 31, 2003).

EXH. A

**White, John**

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**From:** charlie.stuck@reacontract.com  
**Sent:** Tuesday, September 29, 2009 3:25 PM  
**To:** White, John  
**Cc:** Tim.Gaddy@reacontract.com; David.Fletcher@reacontract.com; Jason.Ferrell@reacontract.com  
**Subject:** Protesting a bid

Mr. White,

Rea Contracting would like to protest the Orangeburg VR Center Truck Entrance Construction ,OSE Proj. H73-9587-PG on the basis that the Addendum #1 was not acknowledged on Palmetto Site Preps bid. On the detail of the concrete paving the concrete was specified as Class "B" concrete. The addendum then came out was modified to a 3000psi mix. The SCDOT Standard Specifications for highway Construction Edition of 2000 on page 579 states that Class B is the same as class 2500. So by changing the concrete to a 3000 psi mix the material cost would clearly go up making a difference in the price of the bid. This is why I feel that Rea Contracting should be awarded the job.

Thanks,

C.Stuck

Charlie Stuck  
Commercial Salesman  
Rea Contracting, LLC.  
3176 Charleston Hwy  
West Columbia, SC 29171  
Tel #803-744-4536  
Fax #803-791-1965  
Cell #803-309-0248

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**Note:**

This message is for the named person's use only. It may contain confidential, proprietary or legally privileged information. No confidentiality or privilege is waived or lost by any mistransmission. If you receive this message in error, please immediately delete it and all copies of it from your system, destroy any hard copies of it and notify the sender. You must not, directly or indirectly, use, disclose, distribute, print, or copy any part of this message if you are not the intended recipient. LANE INDUSTRIES and any of its subsidiaries each reserve the right to monitor all e-mail communications through its networks.

Any views expressed in this message are those of the individual sender, except where the message states otherwise and the sender is authorized to state them to be the views of any such entity.

Thank You.

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10/6/2009

# SOUTH CAROLINA BUSINESS OPPORTUNITIES

Published by Materials Management Office – R. Voight Shealy, Director

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A Listing, Published Twice Per Week, of  
Proposed Procurements in Construction,  
Information Technology, Supplies & Services  
As Well As Other Information of Interest to the  
Business Community.

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May Be Reproduced, Stored in a Retrieval  
System or Transmitted in Any Form Or  
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Or Otherwise, Without Prior Written  
Permission of the Publisher.

Sealed Bids Listed in This Publication Will Be  
Received at the Time, Place & Date Indicated  
in the Announcements & Then Be Publicly  
Opened & Read Aloud. The State/Owner  
Reserves the Right to Reject Any Or All Bids  
& to Waive Technicalities.

## CONSTRUCTION

### Invitation for Construction Bids

SCBO Notes referred to in State Agency advertisements appearing in the Construction Section of SC Business Opportunities can be found at <http://www.mmo.sc.gov/MMO/ops/SCBONotes.pdf>. Please verify requirements for non-State agency advertisements by contacting the agency / owner.

**Project Name:** CLASS OF 1960;  
NORTH GREEN  
**Project Number:** H12-9852  
**Location:** Clemson University  
**Applicable SCBO Notes:** 2, 4, & 5  
**Bid Security Required:** Yes  
**Performance Bond Required:** Yes  
**Payment Bond Required:** Yes  
**Description of Project:** This project includes the removal of concrete sidewalks, add fill & top soil, fine grading, drainage, brick walls, steps, ramps, sidewalks, site furniture, site lighting, irrigation & planting trees & shrubs in a space bounded by Carillon Gardens (north) & the outdoor amphitheatre (south) & Martin Hall (east) & Brackett Hall (west). The work also includes, but is not limited to, temporary traffic controls & erosion control. Work shall be completed in one phase. Contractor may be subject to performance appraisal at close of project.

**Construction Cost Range:** \$450,000 - \$650,000

**Architect/Engineer:** Clemson University  
**A/E Contact:** Barry Anderson  
**A/E Address:** Gentry Hall, 191 Old Greenville Hwy., Clemson, SC 29634

**A/E Telephone:** (864) 656-5189

**A/E Fax:** (864) 656-0167

**A/E E-mail:** [bdandrs@clemson.edu](mailto:bdandrs@clemson.edu)

**Plans May Be Obtained From:**  
[http://www.clemson.edu/facilities/capital\\_projects/projects/Class%20of%201960/index.html](http://www.clemson.edu/facilities/capital_projects/projects/Class%20of%201960/index.html) - addenda will be posted with plans at this web site

**Pre-Bid Conf./Site Visit:** Not mandatory

**Pre-Bid Date/Time:** 9/4/09 – 1:00pm  
**Place:** Gentry Hall, 191 Old Greenville Hwy., Clemson

**Agency/Owner:** Clemson University  
**Name & Title of Agency Coordinator:**  
Sam Zanca, Project Manager  
**Address:** Gentry Hall, 191 Old Greenville Hwy., Clemson, SC 29634

**Telephone:** (864) 656-4270

**Fax:** (864) 656-0167

**E-mail:** [szanca@clemson.edu](mailto:szanca@clemson.edu)

**Bid Due Date/Time:** 9/17/09 – 2:00pm

**Place:** Gentry Hall, 191 Old Greenville Hwy., Clemson, SC 29634

**Hand Deliver Bids To:** Clemson University,  
Gentry Hall, 191 Old Greenville Hwy., Clemson, SC 29634-5952

**Mail Bids To:** Clemson University, Gentry Hall, 191 Old Greenville Hwy., Clemson, SC 29634-5952

### RE-BID

**Project Name:** ORANGEBURG  
V.R. CENTER TRUCK  
ENTRANCE CONSTRUCTION

**Project Number:** H73-9587-PG

**Location:** Orangeburg, SC

**Applicable SCBO Notes:** 2, 4, & 5

**Bid Security Required:** Yes

**Performance Bond Required:** Yes

**Payment Bond Required:** Yes

**Description of Project:** Work involves the grading, drainage & construction of a new asphalt truck access drive, & concrete parking area. Work also includes new fencing to match existing as shown on civil drawings. See civil drawings for complete scope of work. Contractor may be subject to performance appraisal at close of project.

**Construction Cost Range:** \$100,000 - \$500,000

**Architect/Engineer:** CDA Architects

**A/E Contact:** Edal Mobley

**A/E Address:** 1523 Huger St., Columbia, SC 29201

**A/E Telephone:** (803) 799-6502

**A/E Fax:** (803) 799-2014

**A/E E-mail:** [edal@cdaarchitectsinc.com](mailto:edal@cdaarchitectsinc.com)

**Plans on File At:**

**AGC:** Columbia

**Dodge:** Columbia

**Plans May Be Obtained From:** CDA Architects, (803) 799-6502

**Plan Deposit:** \$100.00, refundable

**Pre-Bid Conf./Site Visit:** None

**Agency/Owner:** SC Vocational Rehabilitation Department

**Name & Title of Agency Coordinator:**  
Wes Stokes, Director of Facilities Management

**Address:** PO Box 15, West Columbia, SC 29171

**Telephone:** (803) 528-1653

**Fax:** (803) 935-5653

**E-mail:** [wstokes@scvrd.state.sc.us](mailto:wstokes@scvrd.state.sc.us)

**Bid Due Date/Time:** 9/22/09 – 2:00pm

**Place:** SCVRD, 1410 Boston Ave., West Columbia, SC

**Hand Deliver Bids To:** SC Vocational Rehabilitation Department, Attn.: Wes Stokes, 1410 Boston Ave., West Columbia, SC

**Mail Bids To:** SC Vocational Rehabilitation Department, Attn.: Wes Stokes, PO Box 15, West Columbia, SC 29171-0015

**Description:** D.S.N. ADULT ACTIVITY  
DAY CENTER CONSTRUCTION

**Solicitation Number:** IFB 2909/101024

**Delivery Point:** Beaufort County, SC

**Description of Project:** The work includes construction of a new single-story Adult Activity Day Center of approximately 25,000 SF. Project scope includes, but is not limited to, site work, asphalt paving, utilities, concrete hardscaping, landscaping, aluminum fencing, new steel-frame structures with masonry veneer & metal / built-up roofs, aluminum storefront & curtain wall, plumbing, HVAC (including ground-source heat pumps), controls, electrical, lighting, fire protection, communications, accessories & appurtenances, complete at shown on the contract drawings & as described in the project manual

**Pre-Bid Conf.:** 9/10/09 – 10:00am at Beaufort County Purchasing Department, Conference Room, 102 In-





**CDA Architects**  
Architecture • Interiors • Planning

1523 Huger Street  
Columbia, South Carolina 29201

(803) 799-6502 FAX (803) 799-2014

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**ADDENDUM #1**

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**PROJECT: Orangeburg VR Center  
Truck Entrance Construction**

**DATE: 9-17-09**

**CDA Proj # 08-229  
OSE Proj # H73-9587-PG**

**TOTAL PAGES: 1  
(Including this sheet)**

This addendum modifies the specifications and plans for the above-referenced project dated with revision date of 8-10-09. Changes noted herein shall become part of the contract. Except as noted herein, the original drawings and specifications shall apply.

**DRAWINGS:**

1. The 6" concrete pavement/parking lot detail on sheet C4 should be 3,000 psi. Omit "class B"

**END OF ADDENDUM #1**



**CDA Architects**  
Architecture • Interiors • Planning

1523 Huger Street  
Columbia, South Carolina 29201  
(803) 799-6502 FAX (803) 799-2014

### CERTIFIED BID TABULATION

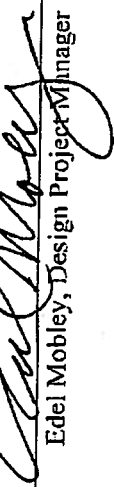
**PROJECT:** Orangeburg VR Center  
Truck Entrance Construction  
State Project # H73-9587-PG  
CDA Project #08-229

**DATE:** September 22, 2009 **TIME:** 2:00

BIDDER	GC LICENSE #	BID SECURITY	ADDENDUM # 1	SUBCONTR. LISTING (N/A)	BASE BID AMOUNT
L-J, Inc. 220 Stoneridge Drive, suite 105 Columbia, SC 29210	G112370	SE-335 5% of base	Yes		\$239,460.10
Branks General Contractors PO Box 1109 Johns Island, SC 29457	G115305	SE-335 5% of base	Yes		\$311,900.00
Richardson Construction Co. of Columbia PO Box 3489 Columbia, SC 29230	G10951	SE-335 5% of base	Yes		\$334,847.40
Bob Hammond Construction, Inc. PO Box 1857 Moncks Corner, SC 29461	G94645	SE-335 5% of base	Yes		\$263,756.00
Palmetto Site Prep, LLC PO Box 1323 Orangeburg, SC 29116	G105740	SE-335 5% of base	Did not acknowledge		\$182,450.00

Cherokee, Inc. PO Box 90448 Columbia, SC 29290	G12263	SE-335 5% of base	Yes		\$211,598.17
Charles Blanchard Construction Co. 2845 Rivers Ave. North Charleston, SC	G11461	SE-335 5% of base	Yes		\$287,900.00
Plowden Construction Co., Inc. PO Box 2518 Sumter, SC 29151	G10596	SE-335 5% of base	Yes		\$223,286.00
Joe Singleton Company, Inc. 905 Lewis Road Sumter, SC 29154	G95861	SE-335 5% of base	Yes		\$234,480.00
Rea Contracting, LLC 6135 Park South Drive Charlotte, NC 28210	G109510	SE-335 5% of base	Yes		\$192,050.00
H. Senn Construction, LLC 507 Lawson Road Leesville, SC 29070	G11461	No power of attorney	Yes		Bid not announced
AOS Specialty Contractors, Inc. 300 Latonea Road Columbia, SC 29210	G111758	SE-335 5% of base	Yes		\$236,145.00
Gene Ray Fulmer Co., Inc. 1356 Old Four Notch Road Ridge Spring, SC 29129	G10560	SE-335 5% of base	Yes		\$284,000.00

This is a true and accurate tabulation of bids received on Tuesday, September 22 at 2:00 p.m., at SCVRD, 1410 Boston Avenue, West Columbia, SC.

Signed:   
Edel Mobley, Design Project Manager

Signed:   
Wes Stokes, Facilities Manager



SE-330

## Bid Form

EXH. E

2008 Edition  
(Revised 12-12-08)*Bids shall be submitted only on SE-330*BID SUBMITTED BY: Palmetto Site Prep, LLC  
(Bidder's Name)BID SUBMITTED TO: South Carolina Vocational Rehabilitation Department  
(Agency Name)FOR PROJECT: H73-9587-PG Orangeburg VR Center Truck Entrance Construction  
(Number) (Name)

## OFFER

1. In response to the Form SE-310, *Invitation for Construction Bids*, and in compliance with the *Instructions to Bidders* for the above-named Project, the undersigned **BIDDER** proposes and agrees, if this Bid is accepted, to enter into a Contract with the **AGENCY** in the form included in the Bidding Documents, and to perform all Work as specified or indicated in the Bidding Documents, for the prices and within the time frames indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

2. Pursuant to Section 11-32-3030(1) of the SC Code of Laws, as amended, **BIDDER** has submitted Bid Security as follows in the amount and form required by the Bidding Documents:

☐ Bid Bond with Power of Attorney ☐ Electronic Bid Bond ☐ Cashier's Check  
(**BIDDER** check one)

3. **BIDDER**, by submitting this Bid, affirms that it has carefully examined the Bidding Documents and the other related data identified in the Bidding Documents, has visited the actual location of the Work, has satisfied itself as to all conditions and understands that, in signing this Bid Form, it waives all rights to plead any misunderstanding regarding same and agrees to be bound by the provisions of said Bidding Documents and all statements made therein.

4. **BIDDER** acknowledges the receipt of the following Addenda to the Bidding Documents and has incorporated the effects of said Addenda into its Bid:

ADDENDUM No: \_\_\_\_\_

5. **BIDDER** accepts all terms and conditions of the *Invitation for Construction Bids*, including, without limitation, those dealing with the disposition of Bid Security. **BIDDER** agrees that this Bid, including all Alternate Base Bids, may not be revoked or withdrawn after the opening of bids, and shall remain open for acceptance for a period of 60 Days following the Bid Date, or for such longer period of time that **BIDDER** may agree to in writing upon request of the **AGENCY**.

6. **BIDDER** herewith submits its offer to provide all labor, materials, equipment, tools of trades and labor, accessories, appliances, warranties and guarantees, and to pay all royalties, fees, permits, licenses and applicable taxes necessary to complete the following items of construction work:

6.1 **BASE BID WORK (BASE BID NO. )** (as indicated in the Bidding Documents and generally described as follows):  
Base bid includes new construction as indicated on drawings and in the specifications for a new truck entry drive at the Orangeburg Work Training Center, Orangeburg, SC

\$182,450.00, which sum is hereafter called the **BASE BID No. 1**.  
(enter BASE BID in figures only)

(If there are additional Base Bids insert the following for each):

# SE-330 Bid Form

2008 Edition

## LISTING OF PROPOSED SUBCONTRACTORS

1. A Subcontractor is an entity who will perform work or render service to the prime contractor to or about the construction site. Material suppliers, manufacturers and fabricators are not Subcontractors and are not to be listed.
2. Bidder must list in its bid the name of only those Subcontractors that will perform the work so identified in the Invitation.
3. If Bidder determines to use its own employees to perform any portion of the work listed below, and if Bidder is qualified to perform such work under the terms of the Bidding Documents, Bidder must list itself in the appropriate place in its bid and not subcontract any of that work except with the approval of the Agency for good cause shown.
4. Bidder's failure to list a Subcontractor for each listed Specialty Subcontractor will render the BID non-responsive.
5. A Subcontractor listed for an Alternate Base Bid must be used for all work if the Alternate Base Bid is accepted.
6. Bidder hereby states its commitment to use the below-listed Subcontractors in the performance of the Subcontractor Specialty work listed:

**SUBCONTRACTOR  
SPECIALTY  
(COMPLETED BY A/E)**

**SUBCONTRACTOR OR  
PRIME CONTRACTOR'S NAME  
(MUST BE COMPLETED BY BIDDER)**

**SUBCONTRACTOR'S  
SC LICENSE NUMBER  
(For Information)**

### BASE BID 1

NO SUBCONTRACTOR LISTING REQUIRED

### BASE BID 2

NO SUBCONTRACTOR LISTING REQUIRED

### BASE BID 3

# SE-330 Bid Form

2008 Edition  
(Revised 12-12-08)

8. At any time prior to the issuance of the Notice to Proceed for this Project, this Contract may be canceled for the convenience of the State.
9. Neither the State of South Carolina nor any of its agencies, employees or agents shall be responsible for any bid preparation costs, or any costs or charges of any type, should all bids be rejected or the Project canceled for any reason prior to the issuance of the Notice to Proceed.

## ELECTRONIC BID BOND

By signing below, the Principal is affirming that the identified electronic bid bond has been executed and that the Principal and Surety are firmly bound unto the State of South Carolina under the terms and conditions of the Form SE-335 included in the Bidding Documents.

\_\_\_\_\_  
(Electronic Bid Bond Number)

\_\_\_\_\_  
(Signature and Title)

## BIDDER'S TAXPAYER IDENTIFICATION

FEDERAL EMPLOYER'S IDENTIFICATION NUMBER: \_\_\_\_\_

57-1117453

OR

SOCIAL SECURITY NUMBER: \_\_\_\_\_

## CONTRACTOR'S CLASSIFICATIONS AND SUBCLASSIFICATIONS WITH LIMITATIONS

AP5 CP5 GDS WLS  
(Classification)

\_\_\_\_\_  
(Subclassification)

Unlimited  
(Limitations)

G105740  
(SC Contractor's License Number)

## SIGNATURE

Palmetto Site Prep, LLC  
(Legal Name of Person, Firm or Corporation Submitting Bid)

P.O. Box 1323, Orangeburg S.C. 29116  
(Mailing Address for the above)

BY: \_\_\_\_\_

(Signature)

9-22-09  
(Date)

General Manager  
(Title)

(803) 536-3143  
(Phone)



# SE-335 Bid Bond

KNOW ALL PERSONS BY THESE PRESENTS THAT Palmetto Site Prep, L.L.C.

P.O. Box 1323, Orangeburg, SC 29116-1323

*(Insert full name and address or legal title of Bidder)*

hereinafter referred to as "Principal," and Safeco Insurance Company of America

1001 Fourth Ave, Safeco Plaza, Seattle, WA 98154

*(Insert full name and address of principal place of business of Surety)*

a corporation duly organized and existing under the laws of the State of WA, with its principal office in the City of Seattle, and authorized to transact business in this State, hereinafter called the "Surety", are jointly and severally held and firmly bound unto

South Carolina Vocational Rehabilitation Department

*(Insert full name of Agency)*

hereinafter referred to as "Obligee", the sum of Five Percent of Amount Bid 5%, being the sum of the Bond to which payment the Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

**THE CONDITION OF THIS OBLIGATION IS SUCH** that whereas the Principal has submitted to Obligee the accompanying bid incorporated by reference herein, dated as shown, to enter into a contract in writing for

H73-9587-PG Orangeburg VR Center Truck Entrance Construction

*(Insert the State Project Number & Name as found on the SE-330, Bid Form)*

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that default of Principal shall occur upon the failure of the Principal to deliver, within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Obligee), the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents. This obligation shall be null and void if the Obligee shall accept Principal's Bid and Principal delivers, within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Obligee), the executed Agreement required by the Bidding Documents and any performance and payment Bonds required by the Bidding Documents; or all Bids are rejected by Obligee; or Obligee fails to issue a Notice of Intended Award to Principal within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Principal). Payment under this Bond shall be due and payable in full upon default of Principal and within 30 calendar days after receipt by Principal and Surety of written notice of default from Obligee, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due. Surety waives notice of and any and all defenses based on or arising out of any time extension to issue the Notice of Intended Award agreed to in writing by Obligee and Principal. Any dispute, suit, action or proceeding arising out of or relating to this Bond shall be governed by the Dispute Resolution process defined in the Bidding Documents and the laws of the State of South Carolina. Surety shall cause to be attached to the Bond a current and effective Power of Attorney evidencing the authority of the officer, agent or representative who executed this Bond on behalf of Surety to execute, seal and deliver such Bond and bind the Surety thereby.

IN WITNESS WHEREOF, Surety and Principal, intending to be legally bound hereby, subject to the terms stated above, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent or representative.

DATED this 22nd day of September, 2009 BOND NUMBER Bid Bond

## PRINCIPAL

Palmetto Site Prep, L.L.C.

*(Principal's Name)*

BY:

[Signature] General Manager  
*(Signature and Title)*

ATTEST:

Chris Owens  
*(Signature and Title)*

## SURETY

Safeco Insurance Company of America

*(Surety's Name)*

BY:

[Signature]  
*(Signature and Title) (Attach Power of Attorney)*  
Duainette H. Cullum Attorney-in-Fact

ATTEST:

[Signature]  
*(Signature and Title)*

POWER  
OF ATTORNEY

KNOW ALL BY THESE PRESENTS:

No. 6744

That **SAFECO INSURANCE COMPANY OF AMERICA** and **GENERAL INSURANCE COMPANY OF AMERICA**, each a Washington corporation, does each hereby appoint

\*\*\*\*\*ADRIAN C. BURCHETT; DELLA B. CASE; DUAINETTE H. CULLUM; WELSEY V. DASHER, JR.;  
FRANK W. HAFNER, JR.; LORI L. JACOBS; ALFRED T. JOHNSON; ROBERT J. LAVISKY; MARIAN C.  
NEWMAN; Columbia, South Carolina\*\*\*\*\*

its true and lawful attorney(s)-in-fact, with full authority to execute on its behalf fidelity and surety bonds or undertakings and other documents of a similar character issued in the course of its business, and to bind the respective company thereby.

IN WITNESS WHEREOF, **SAFECO INSURANCE COMPANY OF AMERICA** and **GENERAL INSURANCE COMPANY OF AMERICA** have each executed and attested these presents

this 8th day of May, 2009

*Dexter R. Legg*

Dexter R. Legg, Secretary

*TAMIKOLAJEWSKI*

Timothy A. Mikolajewski, Vice President

CERTIFICATE

Extract from the By-Laws of **SAFECO INSURANCE COMPANY OF AMERICA**  
and of **GENERAL INSURANCE COMPANY OF AMERICA**:

"Article V, Section 13. - FIDELITY AND SURETY BONDS ... the President, any Vice President, the Secretary, and any Assistant Vice President appointed for that purpose by the officer in charge of surety operations, shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business... On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided, however, that the seal shall not be necessary to the validity of any such instrument or undertaking."

Extract from a Resolution of the Board of Directors of **SAFECO INSURANCE COMPANY OF AMERICA**  
and of **GENERAL INSURANCE COMPANY OF AMERICA** adopted July 28, 1970.

"On any certificate executed by the Secretary or an assistant secretary of the Company setting out,

- (i) The provisions of Article V, Section 13 of the By-Laws, and
- (ii) A copy of the power-of-attorney appointment, executed pursuant thereto, and
- (iii) Certifying that said power-of-attorney appointment is in full force and effect,

the signature of the certifying officer may be by facsimile, and the seal of the Company may be a facsimile thereof."

I, Dexter R. Legg, Secretary of **SAFECO INSURANCE COMPANY OF AMERICA** and of **GENERAL INSURANCE COMPANY OF AMERICA**, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of these corporations, and of a Power of Attorney issued pursuant thereto, are true and correct, and that both the By-Laws, the Resolution and the Power of Attorney are still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of said corporation

this 22nd day of September, 2009



*Dexter R. Legg*

Dexter R. Legg, Secretary





# SE-370 Notice of Intent to Award

2008 Edition

AGENCY: SOUTH CAROLINA VOCATIONAL REHABILITATION DEPARTMENT

(Agency Name)

PROJECT: H73-9587-PG

(Project Number)

ORANGEBURG VR CENTER TRUCK ENTRANCE CONSTRUCT.

(Project Name)

## TO ALL BIDDERS:

The Agency has determined that the below-named Bidder is responsible in accordance with the requirements of the Bidding Documents and has submitted the lowest responsive Bid. The Agency hereby announces its intent to enter into a contract with this Bidder for the construction of the above-named Project, subject to the provisions of SC law.

NAME OF BIDDER(S): PALMETTO SITE PREP, LLC

DATE BIDS WERE RECEIVED: SEPTEMBER 22, 2009

AMOUNT OF BASE BID:

\$ 182,450.00

ALTERNATE(S) ACCEPTED: # N/A

Total: \$ 0

TOTAL AMOUNT OF BASE BID WITH ALTERNATE(S):

\$ 182,450.00

Remarks: (In accordance with Chapter 6 of the OSE Manual, explain any negotiations that resulted in a change in either the Base Bid or the accepted Bid Alternates)

PALMETTO SITE PREP, LLC DEEMED RESPONSIVE, EVEN THOUGH ADDENDUM NOT

ACKNOWLEDGED. IN ACCORDANCE WITH 00201-OSE, STANDARD SUPPLEMENTAL

INSTRUCTIONS TO BIDDERS, PARAGRAPH 3.4.6.1 AND 3.4.6.3.

ADDENDUM ONLY SERVES AS A CLARIFICATION AND DOES NOT EFFECT THE BID AMOUNT.

## RIGHT TO PROTEST:

Any actual bidder, offeror, contractor or subcontractor who is aggrieved in connection with the intended award or award of this Contract may protest to the State Engineer in accordance with Section 11-35-4210 of the SC Code of Laws at: CPO, Office of State Engineer, 1201 Main Street, Suite 600, Columbia, SC 29201, EMAIL: [protest-ose@mmo.sc.gov](mailto:protest-ose@mmo.sc.gov)

(Signature of Awarding Authority)

SEPTEMBER 23, 2009

(Date Posted)

RICHARD ELAM

(Print or Type Name of Awarding Authority)

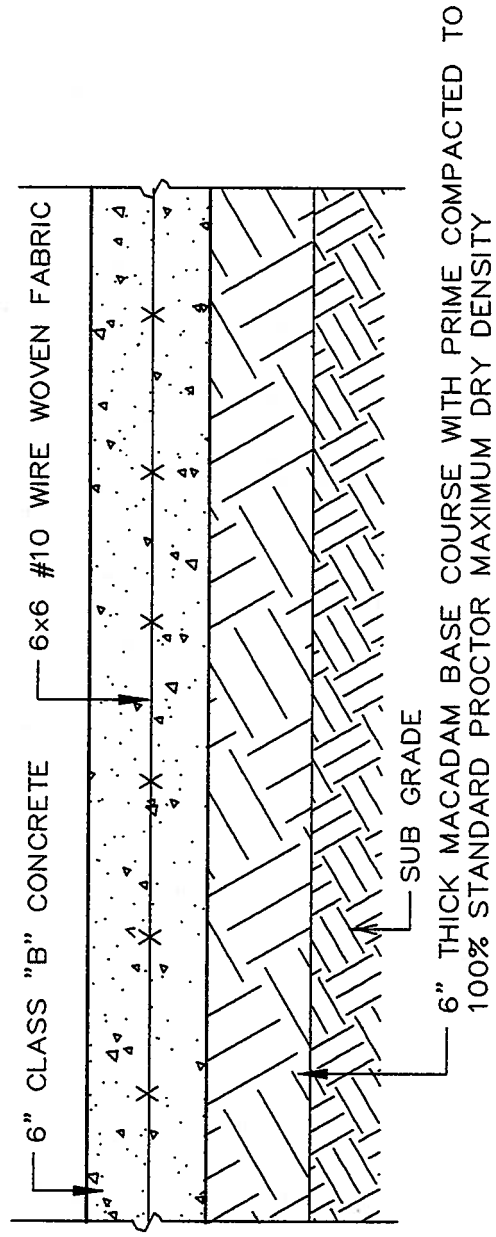
ASSISTANT COMMISSIONER

(Awarding Authority Title)

## INSTRUCTIONS TO THE AGENCY:

1. Post a copy of this form on the Date and at the Location announced at the Bid Opening.
2. Mail a copy of this Form and the final Bid Tabulation to all responsive Bidders and OSE.

NOTE:  
SEE SPECIFICATIONS FOR EXPANSION/CONTRACTION JOINTS



CONCRETE PAVEMENT / PARKING LOT DETAIL

NOT TO SCALE

## SECTION 033000- CAST-IN-PLACE CONCRETE

### PART 1 GENERAL

#### 1.1 SECTION INCLUDES

- A. Cast-in-place concrete for floors, walls, suspended floors, and beams including curing, finishing, formwork, and reinforcement where shown on the Drawings and as specified herein, and as required for a complete and proper installation.
- B. Floors and slabs on grade.
- C. Control, expansion and contraction joint devices associated with concrete work including joint sealants.
- D. Equipment pads, light pole bases, flagpole bases, thrust blocks, manholes, and other items shown to be made of cast in place concrete.

#### 1.2 RELATED SECTIONS

- A. Section 03100 - Concrete Formwork: Formwork and accessories.
- B. Section 03200 - Concrete Reinforcement.
- C. Section 03340 - Concrete Finishing.
- D. Section 03370 - Concrete Curing.

#### 1.3 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. No direct payment will be made for the work under this Section. All Costs for work performed under this Section shall be included in the lump sum price as bid for the project, or in other unit costs as applicable.

#### 1.4 REFERENCES

- A. ACI 211.1 - Selecting Proportions for Normal, Heavyweight, and Mass Concrete.
- B. ACI 211.2 - Selecting Proportions for Structural Lightweight Concrete.
- C. ACI 301 - Structural Concrete for Buildings.

- D. ACI 302 - Guide for Concrete Floor and Slab Construction.
- E. ACI 304 - Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete.
- F. ACI 305R - Hot Weather Concreting.
- G. ACI 306R - Cold Weather Concreting.
- H. ACI 308 - Standard Practice for Curing Concrete.
- I. ACI 318 - Building Code Requirements for Reinforced Concrete.
- J. ASTM B221 - Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes.
- K. ASTM C33 - Concrete Aggregates.
- L. ASTM C94 - Ready-Mixed Concrete.
- M. ASTM C150 - Portland Cement.
- N. ASTM C260 - Air Entraining Admixtures for Concrete.
- O. ASTM C330 - Light Weight Aggregates For Structural Concrete.
- P. ASTM C494 - Chemical Admixtures for Concrete.
- Q. ASTM C618 - Fly Ash and Raw or Calcinated Natural Pozzolan for Use as a Mineral Admixture in Portland Cement Concrete.
- R. ASTM C948 - Test Method for Dry and Wet Bulk Density, Water Absorption and Apparent Porosity of Thin Sections of Glass-Fiber-Reinforced Concrete.
- S. ASTM D994 - Preformed Expansion Joint Filler for Concrete (Bituminous Type).
- T. ASTM D1190 - Concrete Joint Sealer, Hot-Poured Elastic Type.
- U. ASTM D1751 - Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non-extruding and Resilient Bituminous Types).
- V. ASTM D1752 - Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.

## 1.5 SUBMITTALS FOR REVIEW

- A. Section 01300 - Submittals: Procedures for submittals.
- B. Product Data: Provide manufacturer's specifications with application instructions for proprietary materials and items including joint devices, attachment accessories, admixtures, curing compounds, form release agents, patching compounds, and other materials as requested by the Engineer.
- C. Concrete Mix Design: Submit for approval the proposed mix designs for each strength concrete to be used within thirty (30) calendar days of receipt of the Owner's Notice to Proceed.
  - 1. Proportions shall be determined by means or laboratory tests of concrete made with the cement and aggregate proposed for use.
  - 2. Provide report in detail from an approved testing laboratory showing 7-day and 28-day strengths obtained using materials proposed.
  - 3. Required average strength above specified strength:
    - a. Determinations of required average strength ( $f'_c$ ) above specified strength shall be in accordance with ACI 318 and ACI 301.
    - b. Establish the required average strength of the assign mix using the materials proposed to be employed. Standard deviations shall be determined by thirty (30) tests. Average strength used for selecting proportions shall exceed specified strength ( $F'_c$ ) by at least:
      - i. 400 psi - Standard deviation is less than 300
      - ii. 550 psi - Standard deviation is 300 to 400
      - iii. 700 psi - Standard deviation is 400 to 500
      - iv. 900 psi - Standard deviation is 500 to 600
      - v. 1200 psi - Standard deviation is above 600 or unknown
    - c. When the ready-mix producer does not have a record of past performance the combination of materials and the proportion selected shall be selected from trial mixes having proportions and consistencies suitable for the work using at least three (3) different water/cement ratios which will produce a range of strengths encompassing those required. Average strength required shall be 1200 psi above specified strength.
  - 4. Cost of this work shall be borne by the Contractor.
- D. Shop Drawings: Submit the following shop drawings to the Engineer for approval prior to commencing work:

1. Reinforcing steel drawings: Prepare in accordance with ACI 315. Indicate bending diagrams, assembly diagrams, splicing and laps of bars, dimensions and details of bar reinforcing and accessories.

## 1.6 SUBMITTALS FOR INFORMATION

- A. Section 01300 - Submittals: Procedures for submittals.
- B. Manufacturer's Installation Instructions: Indicate installation procedures and interface required with adjacent Work.

## 1.7 SUBMITTALS AT PROJECT CLOSEOUT

- A. Section 01700 - Contract Closeout: 01730 - Operation and Maintenance Data: 01740 - Warranties and Bonds: Procedures for submittals.
- B. Accurately record actual locations of embedded utilities and components which are concealed from view.

## 1.8 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this section.
- B. Perform Work in accordance with applicable sections of the ACI, ASTM, CRSI, and AWS Codes.
- C. Testing Agency: An independent testing laboratory shall be selected by the Owner and retained by the Contractor to perform material evaluation tests as required by these specifications.
- D. Qualifications of contractors performing concrete work: Minimum of two (2) years experience on comparable concrete projects.
- E. Plant qualification: Plant equipment and facilities shall meet all requirements of the Check List for Certification of Ready Mixed Concrete Production Facilities of the National Ready Mixed Concrete Association and ASTM C94.

## 1.9 MOCK-UP

- A. Section 01400 - Quality Control: Requirements for mock-up.

- B. Construct and erect a field sample for architectural concrete surfaces receiving special treatment or finish as result of formwork.
- C. Sample Panel: Sufficient size to indicate special treatment or finish required.
- D. If requested by Architect/Engineer, cast concrete against sample panel. Obtain acceptance of resultant surface finish prior to erecting formwork.
- E. Accepted sample panel is considered basis of quality for the finished work. Keep sample panel exposed to view for duration of concrete work.

## PART 2 PRODUCTS

### 2.1 CONCRETE MATERIALS

- A. Portland cement: ASTM C150, Type I - Normal or Type IA - Air Entraining.
- B. Aggregates:
  - 1. Fine Aggregate: ASTM C33
  - 2. Coarse Aggregate: ASTM C33, Size #57
- C. Water: Clean, potable, free from deleterious material and not detrimental to concrete.
- D. Glass Fiber Reinforcement: ASTM C948. Polypropylene or co-polymer fibers as manufactured by High Tech Fibers, Inc., or Fibermesh Fibers as manufactured by the Fibermesh Company, or approved equal.

### 2.2 ADMIXTURES

- A. Air Entrainment: ASTM C260.
- B. Chemical: ASTM C494
  - 1. Type A - Water Reducing
  - 2. Type B - Retarding
  - 3. Type C - Accelerating
  - 4. Type D - Water Reducing and Retarding
  - 5. Type E - Water Reducing and Accelerating
  - 6. Type F - Water Reducing, High Range
  - 7. Type G - Water Reducing, High Range and Retarding
- C. Fly Ash, Calcinated Pozzolan: ASTM C618.
- D. Admixtures containing calcium chloride will not be permitted.

### 2.3 ACCESSORIES

- A. Bonding Agent: Polymer resin emulsion or Latex emulsion.
- B. Vapor Retarder: 6 mil thick clear polyethylene film or fabric reinforced plastic film of a type recommended for below grade application.



- C. Non-Shrink Grout: Premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents; capable of developing minimum compressive strength of 2,400 psi in 48 hours and 7,000 psi in 28 days.

## 2.4 JOINT DEVICES AND FILLER MATERIALS

- A. Joint Filler Type C: ASTM D1752; Premolded sponge rubber fully compressible with recovery rate of minimum 95 percent.
- B. Construction Joint Devices: Integral galvanized steel; formed to tongue and groove profile, with removable top strip exposing sealant trough, knockout holes spaced at 6 inches, ribbed steel spikes with tongue to fit top screed edge.
- C. Expansion and Contraction Joint Devices: ASTM B221 extruded aluminum; resilient elastomeric, vinyl, or neoprene filler strip with a Shore A hardness of 35 to permit plus or minus 25 percent joint movement with full recovery; extruded aluminum vinyl cover plate, of longest manufactured length at each location, mounted as directed by the engineer, color as selected.
- D. Sealant and Primer: As specified in Section 09900.
- E. Bonding to Existing Concrete Wall:
  - 1. Surfaces must be clean and sound. Remove all dirt, laitance, grease, curing compounds and other foreign matter by sand blasting, mechanical abrasion or acid etching. Remove water and sust from all surfaces with an oil-free air blast immediately prior to application of compound. See Section 3.2.
  - 2. Epoxy Bonding Agent: Material shall be 100% solids, modulus moisture insensitive, epoxy resin compliant with ASTM C-881, Type I and II, Grade 2, Class C to be determined by application. Approved product: Conspec SpecBond 100 or approved equal.
  - 3. Contractor responsible for proper use of product. See Manufacturers guidelines before application.

## 2.5 CONCRETE MIX

- A. Production of concrete:
  - 1. Concrete shall be ready mixed. Batch, mix and deliver concrete in accordance with ASTM C94, unless otherwise indicated. Select proportions for concrete in accordance with ACI 301 and ACI 211.1 as applicable.
  - 2. Monitor time and mix proportions by plant delivery slips.

3. Add air entrainment admixture to concrete as a solution and measure by means of an approved mechanical dispensing device.
4. Add water reducing and retarding admixture and measure as recommended by the manufacturer.
5. Addition of water to the mix upon arrival at the job site shall not exceed that necessary to compensate for a 1 inch loss in slump. In no case shall the design maximum water/cement ratio be exceeded. Water shall not be added to the batch at any later time.
6. Control the temperature of the concrete mix as required by ACI 305 or ACI 306 as necessary.

B. Provide concrete to the following criteria:

1. Provide concrete with the compressive strengths shown on the Drawings. When strengths are not shown, provide the following 28 day strengths at a minimum:
  - a. Sidewalks, curbs and gutters, and unreinforced foundations 3000 psi
  - b. Paving and parking lots 3000 psi
  - c. Thrust blocking, backfill, pipe encasement, and concrete fill 2500 psi
  - d. Prestressed or precast concrete 5000 psi
  - e. All other structural concrete 4000 psi
2. Maximum water/cement ratios:
  - a. 4000 psi concrete 0.50
  - b. 3000 psi concrete 0.53
  - c. 2500 psi concrete 0.67
3. Required air entrainment:
  - a. 3000 and 4000 psi concrete 5%  $\pm$  1%
  - b. 2500 psi concrete not required
4. Maximum slump:
  - a. 3000 and 4000 psi concrete 4"  $\pm$  1"
  - b. 2500 psi concrete 5"  $\pm$  1"

C. Use accelerating admixtures in cold weather only when approved by the Engineer. Use of admixtures will not relax cold weather placement requirements.

D. Use of calcium chloride not approved.

E. Use set retarding admixtures during hot weather only when approved the Engineer.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Verify site conditions under which work of this section is to be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.
- B. Water, mud, debris, and organic and other deleterious material shall be removed from excavations and formwork prior to placement of concrete.
- C. Verify requirements for concrete cover over reinforcement.
- D. Verify that anchors, seats, plates, reinforcement and other items to be cast into concrete are accurately placed, positioned securely, and will not cause hardship in placing concrete.
- E. Notify the Engineer prior to placement of concrete. Place no concrete until formwork, reinforcing, and embedded items have been inspected by the Engineer.

### 3.2 PREPARATION

- A. Prepare previously placed concrete by cleaning with steel brush and applying bonding agent in accordance with manufacturer's instructions.
- B. In locations where new concrete is doweled to existing work, drill holes in existing concrete, insert steel dowels and pack solid with epoxy or non-shrink grout as directed by the Engineer.
- C. Install vapor barrier under interior slabs on grade. Lap joints minimum 6 inches and seal watertight by sealant applied between overlapping edges and ends.
- D. Repair vapor barrier damaged during placement of concrete reinforcing. Repair with vapor barrier material; lap over damaged areas minimum 6 inches and seal watertight.
- E. Coordinate the placement of joint devices with erection of concrete formwork and placement of form accessories.
- F. Remove foreign matter accumulated in the forms.
- G. Rigidly close openings left in the formwork.
- H. Wet wood forms sufficiently to tighten up cracks. Wet other materials sufficiently to maintain workability of the concrete.
- I. Use only clean tools.

- J. Provide sufficient tools and equipment on hand to facilitate uninterrupted placement of the concrete.
- K. Prior to commencing placement of concrete, inspect and complete installation of formwork, reinforcing steel, vapor barrier, and all items to be embedded or cast in.

### 3.3 CONVEYING

- A. Transport and handle concrete From the truck to the place of final deposit as rapidly as practicable by methods which will Prevent segregation or loss of ingredients to maintain the quality of the concrete.
- B. Provide equipment for lifting, dumping, chuting, pumping or conveying the concrete, of such size and design as to insure a practically continuous flow of concrete at the delivery and without separation of materials.
- C. Use hoppers and elephant trunks where necessary to prevent the free fall of concrete For more than eight (8) feet.
- D. Do not use concrete that is not placed within 1-1/2 hours after water is first introduced into the mix unless the slump is such that it meets the specified limits without the addition of water to the batch.

### 3.3 PLACING CONCRETE

- A. Notify Engineer minimum 24 hours prior to commencement of operations.
- B. Place concrete in accordance with all applicable provisions of ACI Codes.
  - 1. Deposit concrete as nearly as practicable in its final location so as to avoid separation due to rehandling and flowing.
  - 2. Deposit concrete in horizontal layers not deeper than 2 feet, avoiding inclined layers,
  - 3. Place concrete in such a manner that concrete upon which fresh concrete is deposited is still plastic.
  - 4. Bring slab surfaces to the correct levels with screeds set to the proper elevations. Screed slabs level, maintaining surface flatness of maximum 1/4 inch in ten (10) ft.
- C. Hot weather placement: Place concrete in hot weather in accordance with ACI 305 "Hot Weather Concreting" and as specified herein.
  - 1. Do not place concrete whose temperature exceeds 100 degrees F.
  - 2. Thoroughly wet forms and reinforcing prior to placement of concrete.

3. Use additional set retarder as necessary to increase set time.
  4. Limit the size of the pour where it may reduce the likelihood of cold joints due to reduced set time.
  5. Shade the fresh concrete as soon as possible after placing.
  6. Start curing as soon as the concrete is sufficiently hard to permit without damage.
- D. Cold weather placement: Place concrete in cold weather in accordance with ACI 306 and as specified herein.
1. Except when authorized specifically by the Engineer, do not place concrete when the atmospheric temperature is below 40 degrees F.
  2. When cold weather placement is approved by the Engineer, heat either the mixing water or aggregate or both so that the concrete temperature is between 65 degrees F and 85 degrees F.
  3. Protect the freshly Placed concrete by adequate housing or covering and provide heat to maintain a temperature of not less than 50 degrees F for not less than four days.
  4. Do not add salts, chemicals, or other materials to the concrete mix to lower the freezing point of the concrete.
- E. Ensure reinforcement, inserts, embedded parts, formed expansion and contraction joints are not disturbed during concrete placement.
- F. Consolidation:
1. Consolidate each layer of concrete immediately after placing by use of internal concrete vibrators supplemented by hand spading, rodding or tamping.
    - a. Use vibrators having a 2-inch head diameter and a minimum frequency of 8000 vibrations per second.
    - b. Provide sufficient number of vibrators to properly consolidate the concrete, keeping up with placement operations.
    - c. Provide at least one spare vibrator on site.
  2. Insert and withdraw vibrators at points approximately 18 inches apart.
  3. Do not vibrate forms or reinforcement.
  4. Do not use vibrators to transport concrete inside the forms.
- G. Protection:
1. Protect the surface finish of newly placed concrete from damage by rainwater or construction traffic.
  2. Do not apply design loads to structures until the concrete has obtained the specified strength.

- a. Do not backfill against walls until they have reached the specified strength and all supporting or bracing walls, slabs, etc. have also reached the specified strength, unless otherwise permitted by the Engineer.
- b. Protect structures from construction overloads.

#### H. Joints

##### 1. Construction joints:

- a. Unless otherwise approved by the Engineer, provide construction joints as shown on the drawings.
- b. If additional construction joints are found to be required, secure the Engineer's approval of joint design and location prior to start of concrete placement.
- c. Continue all reinforcing across construction joints and provide 1-1/2" deep keyways unless indicated otherwise on the drawings.
- d. Provide waterstops in all construction joints of liquid containing structures, structures below grade or other structures as shown on the drawings.

##### 2. Expansion joints:

- a. Provide expansion joints or size, type and locations at twenty feet intervals.
  - i. Do not permit reinforcement or other embedded metal items that are being bonded with concrete (except smooth dowels bonded on only one side of the joints, where indicated on the drawings) to extend continuously through any expansion joint
- b. Provide waterstops as required.

##### 3. Control or contraction joints:

- a. Where no specific joint pattern is indicated in slabs on grade or concrete pavements, submit a proposed joint layout to the Engineer for approval.
- b. Where no specific joint details are shown on the drawings joints may be tooled, preformed or saw-cut.
- c. Saw-cut joints as soon as the concrete has hardened sufficiently to prevent aggregates from being dislodged by the saw.

F. Separate slabs on grade from vertical surfaces with 1/2 inch thick joint filler.

G. Place joint filler in floor slab. Set top to required elevations. Secure to resist movement by wet concrete.

H. Extend joint filler from bottom of slab to within 1/4 inch of finished slab surface. Conform to Section 07900 for finish joint sealer requirements.

I. Install joint devices in accordance with manufacturer's instructions.

- J. Install construction joint devices in coordination with floor slab pattern placement sequence. Set top to required elevations. Secure to resist movement by wet concrete.
- K. Install joint device anchors. Maintain correct position to allow joint cover to be flush with finished surface.
- L. Install joint covers in longest practical length, when adjacent construction activity is complete.
- M. Apply sealants in joint devices in accordance with Section 07900.
- N. Maintain records of concrete placement. Record date, location, quantity, air temperature, and test samples taken.
- O. Place concrete continuously between predetermined expansion, control, and construction joints.
- P. Do not interrupt successive placement; do not permit cold joints to occur.
- Q. Place floor slabs in checkerboard pattern or saw cut as indicated by the Engineer.
- R. Saw cut joints within 24 hours after placing. Use 3/16 inch thick blade, cut into 1/4 depth of slab thickness.

#### 3.4 SEPARATE FLOOR TOPPINGS

- A. Prior to placing floor topping, roughen substrate concrete surface and remove deleterious material. Broom and vacuum clean.
- B. Place required dividers, edge strips, reinforcing, and other items to be cast in.
- C. Apply bonding agent to substrate in accordance with manufacturer's instructions.
- D. Place concrete floor toppings to required lines and levels. Place topping in checkerboard panels, dimension not to exceed 20 ft .
- E. Screed toppings level, maintaining surface flatness of maximum 1:1000.

#### 3.5 CONCRETE FINISHING

- A. Provide formed concrete surfaces to be left exposed, concrete walls, columns, beams, and joists with smooth rubbed finish.

- B. Finish concrete floor surfaces in accordance with ACI 301 and Section 03340.
- C. Wood float surfaces which will receive quarry tile, ceramic tile, or terrazzo with full bed setting system.
- D. Steel trowel surfaces which will receive carpeting, resilient flooring, seamless flooring, thin set quarry tile, or thin set ceramic tile.
- E. Steel trowel surfaces which are scheduled to be exposed.
- F. In areas with floor drains, maintain floor elevation at walls; pitch surfaces uniformly to drains at 1/4 inch per foot nominal, or as indicated on drawings.

### 3.6 CURING AND PROTECTION

- A. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.
- B. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.
- C. Cure concrete floor surfaces to requirements of Section 03370 and in accordance with ACI 308.
- D. Ponding: Maintain 100 percent coverage of water over floor slab areas continuously for four (4) days.
- E. Spraying: Spray water over floor slab areas and maintain wet for seven (7) days.

### 3.7 FIELD QUALITY CONTROL

- A. Section 01400 - Quality Assurance, 01410 - Testing Services: Field inspection and testing.
- B. Provide free access to Work and cooperate with appointed firm.
- C. Submit proposed mix design for each class of concrete to be used to testing firm for review prior to commencement of Work.
- D. Tests of cement and aggregates may be performed to ensure conformance with specified requirements.
- E. Concrete cylinder tests:



1. During construction, prepare test cylinders for compressive strength testing, using 6-inch diameter by 12-inch long single use molds, complying with ASTM C31.
  - a. Make a set of three test cylinders from each pour of 50 cubic yards or less, Plus one additional set of cylinders for each additional 50 cubic yards or fraction thereof. This requirement shall be for each class of concrete to be placed.
  - b. Identify each and tag cylinder as to date of pour and location of concrete which it represents,
  - c. One additional test cylinder will be taken during cold weather concreting, cured on job site under same conditions as concrete it represents.
  - d. Deliver cylinders to testing lab selected by the Owner.
  - e. Cost For preparation, delivery, and testing of cylinders shall be borne by the Contractor.
2. Should strengths shown by test cylinders fail to meet specified strengths for the concrete represented, then:
  - a. Engineer shall have the right to require changes in the mix proportions as he deems necessary on the remainder of the work.
  - b. Additional curing of those portions of the structure represented by the failed test cylinders shall be accomplished as directed by the Engineer.
  - c. Upon failure of the additional curing to bring the concrete up to specified strength requirements, strengthening or replacement of those portions of the structure shall be as directed by the Engineer.
  - d. The Engineer may require additional testing of concrete in question by either non-destructive methods such as the Swiss Hammer, Windsor Probe or Ultrasonics or by coring and testing the concrete in question in accordance with ASTM C42. Such testing shall be performed at no additional cost to the Owner.

F. Other field concrete tests:

1. Slump tests: Either the Engineer or a testing laboratory representative will make slump tests of concrete as it is discharged from the mixer.
  - a. Slump test may be made on any concrete batch at the discretion of the Engineer
  - b. Failure to meet specified slump requirements (prior to addition of any superplasticizers) will be cause for rejection of the concrete.
2. Temperature: The concrete temperature may be checked at the discretion of the Engineer
3. Entrained air: Air content of the concrete will be checked by a representative of the testing laboratory at the discretion of the Engineer.
4. One slump test will be taken for each set of test cylinders taken.

- G. Coordination of laboratory services: The Contractor shall be responsible for coordination of laboratory services.
1. Maintain a log recording quantities of each type of concrete placed, date and location of pour.
  2. Inform the testing laboratory of locations and dates of concrete placement and other information as required to be identified in the laboratory's test reports.
- H. Tests required because of extensive honeycombing, poor consolidation of the concrete or any suspected deficiency in the concrete will be paid for by the Contractor.
- I. Dimensional tolerances:
1. Dimensional tolerances for allowable variations from dimensions or locations of concrete work, including the locations of embedded items shall be as given in ACI 301.
    - a. Where anchor bolts or other embedded items are required for equipment installation, comply with the manufacturer's tolerances or more stringent than those states in ACI 301.
- J. Watertight concrete:
1. All liquid containing structures, basements or pits below grade shall be watertight.
  2. Any visible leakage or seepage shall be repaired as instructed by the Engineer at no expense to the Owner.
  3. Where physical evidence of honeycombing, cold joints or other deficiencies which may impair the watertightness of a structure exist, the Engineer may at his discretion call for leak testing of the structure.
    - a. Fill the structure with water and allow to stand for not less than forty-eight (48) hours.
    - b. Make repairs on the structure until all visible leaks are sealed and the leakage rate of the water in the structure is less than 0.19 of the volume held in the structure per day.
    - c. The cost of testing and repairs shall be performed at no expense to the Owner.
- K. Concrete which fails to meet strength requirements dimensional tolerances watertightness criteria, or is otherwise deficient due to insufficient curing, improper consolidation or physical damage shall be replaced or repaired as instructed by the Engineer at no expense to the Owner.

### 3.8 PATCHING

- A. Allow Architect/Engineer to inspect concrete surfaces immediately upon removal of forms.
- B. Excessive honeycomb or embedded debris in concrete is not acceptable. Notify Engineer upon discovery.
- C. Patch imperfections in accordance with ACI 301 or as directed.

### 3.9 DEFECTIVE CONCRETE

- A. Defective Concrete: Concrete not conforming to required lines, details, dimensions, tolerances or specified requirements.
- B. Repair or replacement of defective concrete will be determined by Engineer.
- C. Do not patch, fill, touch-up, repair, or replace exposed concrete except upon express direction of Engineer for each individual area.

### 3.10 SCHEDULE - CONCRETE TYPES

- A. Class A: 4000 psi
- B. Class B: 3000 psi
- C. Class C: 2500 psi

(Unless otherwise noted, all concrete shall be Class A.)

END OF SECTION